

What is claimed is:

- 5           1.     A sensor strip comprising:
- (a)     a base layer having a first major surface and a second major surface;
- (b)     a cover layer having a first major surface and a second major surface, the first major surface of said cover layer facing the first major surface of said base layer, the first major surface of the cover layer having a layer of mesh adhered thereto;
- 10           (c)     a spacer layer interposed between the first major surface of said cover layer and the first major surface of said base layer to separate said cover layer from said base layer;
- 15           (d)     a flow channel having walls formed by said first major surface of said cover layer, said first major surface of said base layer, and said spacer layer, said flow channel having a reaction site therein, the layer of mesh not contacting the reaction site;
- 20           (e)     a sample application zone, where a liquid sample is introduced into said flow channel; and
- (f)     at least one opening communicating with said flow channel to allow gas to be vented from said flow channel.
- 25           2.     The sensor strip of claim 1, wherein said reaction site includes an electrode arrangement.
3.     The sensor strip of claim 2, wherein said electrode arrangement comprises a working electrode and a dual-purpose reference
- 30           electrode/counter electrode.
4.     The sensor strip of claim 3, wherein said electrode arrangement further includes a trigger electrode.

5. The sensor strip of claim 3, wherein said electrode arrangement further includes a reagent system on at least said working electrode.
6. The sensor strip of claim 5, wherein said reagent system comprises an enzyme and a mediator for said enzyme.
7. The sensor strip of claim 2, wherein said electrode arrangement comprises a working electrode, a counter electrode, and a reference electrode.
8. The sensor strip of claim 7, wherein said electrode arrangement further includes a trigger electrode.
9. The sensor strip of claim 7, wherein said electrode arrangement further includes a reagent system on at least said working electrode.
10. The sensor strip of claim 9, wherein said reagent system comprises an enzyme and a mediator for said enzyme.
11. The sensor strip of claim 1, wherein said at least one opening is formed in said spacer layer.
12. The sensor strip of claim 1, wherein said at least one opening is formed in said cover layer.
13. The sensor strip of claim 1, wherein said spacer layer comprises a layer of adhesive.
14. The sensor strip of claim 13, wherein said adhesive is formed from a radiation-curable adhesive.
15. The sensor strip of claim 13, wherein said adhesive is formed from a water-borne adhesive or a solvent-borne adhesive.

16. The sensor strip of claim 1, wherein said spacer layer comprises a backing having a layer of adhesive on both major surfaces thereof.